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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,912	02/27/2004	Kenji Sakakibara	4041K-000181	8914
27572	7590	12/29/2005	EXAMINER	
HARNES, DICKEY & PIERCE, P.L.C.			CHANG, SUNRAY	
P.O. BOX 828			ART UNIT	
BLOOMFIELD HILLS, MI 48303			PAPER NUMBER	
			2121	
DATE MAILED: 12/29/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/789,912

Applicant(s)

SAKAKIBARA ET AL.

Examiner

Sunray Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 11 are presented for examination.

Claims 1 – 11 are rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1 – 11 are rejected** under 35 U.S.C. 102(b) as being anticipated by Yasunobu Iwata (U.S. Patent No. 5,485,366, and referred to as **Iwata** hereinafter).

Regarding independent claims 1, 10 and 11, Iwata teaches,

- A sequence controller for system control provided with a data holding unit and a control unit, [sequence controller ... stop-time operation table... for sequence-controlling a controlled object, Abstract] wherein:
- said data holding unit stores operation data instructing operations [step operation program table, Fig. 1] and condition data for causing said operations in accordance with a predetermined sequence [transition condition program table, Fig. 1], [see also Fig. 7 and Col. 4, Line 53 – Col. 5, Line 6] and
- said control unit generates operation instruction signals for instructing said operations from said operation data in accordance with a predetermined sequence and executes said

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operations when conditions defined in said condition data are satisfied [process is complete, Col. 5, Lines 54 – 62]. [process sequence controlling diction, sequence-controlling a controlled object, Abstract, Col. 3, Line 60 – Col. 4, Line 12 and Fig. 1, 4 and 7; see also Col. 1, Lines 18 – 35 and Col. 1, Line 36 – Col. 2, Line 3]

- various type of sensors [optical sensors, Col. 1, Lines 49 – 60]

Regarding dependent claim 2, Iwata teaches,

A sequence controller as set forth in claim 1, wherein

- said condition data includes monitoring data. [currently executed step number, Fig. 1, 4 and Col. 5, Lines 43 – 62; or designate position detection optical sensors, Fig. 8, and Col. 1, Lines 49 – 52]

Regarding dependent claim 3, Iwata teaches,

A sequence controller as set forth in claim 1, wherein

- said condition data includes other numerical data. [stop-time execution operation, Fig. 1, 4, Col. 5, Lines 43 – 62]

Regarding dependent claim 4, Iwata teaches,

A sequence controller as set forth in claim 3, wherein

- said other numerical data is time data. [stop-time execution operation, Fig. 1, 4, Col. 5, Lines 43 – 62]

Regarding dependent claim 5, Iwata teaches,

A sequence controller as set forth in claim 1, which

- determines whether said conditions are satisfied by comparing an input signals from said system being controlled and said condition data. [condition ... checked, Col. 5, Lines 43 – 62]

Regarding dependent claim 6, Iwata teaches,

A sequence controller as set forth in claim 1, wherein

- said control unit converts said operation data and condition data to input/output data of a programmable logic controller. [sequence program employed when controlled object is controller by the sequence controller, Fig. 4, and Col. 5, Lines 7 – 15; see also Col. 4, Line 53 – Col. 5, Line 41]

Regarding dependent claim 7, Iwata teaches,

A sequence controller as set forth in claim 1, wherein

- said operation data and condition data are input through a system control setting menu entering said operations and said conditions for each processing step. [stop-time execution operation table, Fig. 3]

Regarding Independent claim 8, Iwata teaches,

- A system control method having a plurality of steps, data of each step having operation data instructing operations and condition data for said operations, [SFC control program for

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sequence-controlling the controlled object, Col. 5, Lines 16 – 27; see also Col. 5, Line 7 – Col. 6, Line 19 and Abstract] comprising:

- a step of generating operation instruction signals from said operation data and a step of causing operation of said system by said operation instruction signals when said condition data and data obtained from said system match. [condition has not been enabled ... when the processing at step 107 is complete, Col. 5, Lines 54 – 62]

Regarding dependent claim 9, Iwata teaches,

A system control method as set forth in claim 8, wherein

- said condition data includes preset time data and steps for causing operation of said system cause operation of said system conditional on said time having elapsed. [101. Fig. 4]

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sarangapani et al. (U.S. Patent No. 6,240,343) discloses Apparatus and Method for Diagnosing an Engine using Computer Based Models in Combination with a Neural Network. Helmut Windl (U.S. Patent No. 6,898,466) discloses programmable device with a software tool provided to create a control program based on a control problem to be solved. Klein et al. (U.S. Patent No. 5,970,243) discloses an on-line programming changes of industrial logic controllers using a software package. Van Dijk Aart (U.S. Patent No. 6,249,711) discloses a microprocessor is provided to generate PLC instructions. Nicholas T. Gihl (U.S. Patent No. 5,097,470) discloses

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a diagnostic system coupled to a programmable logic controller via a serial data link monitors the operation of apparatus under control of the PLC.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunray Chang whose telephone number is (571) 272-3682. The examiner can normally be reached on M-F 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-3506.

Sunray Chang
Patent Examiner
Group Art Unit 2121
Technology Center 2100
U.S. Patent and Trademark Office



Anthony Knight
Supervisory Patent Examiner
Group 3600

December 21, 2005